```
cy --- H- (My) --- Cy --- Cy --- H--- H--- II
                                                      chain nodes :
1 2 4 5 6 7 8 9 10 11 12
chain bonds :
1-2 2-4 2-5 5-6 6-7 7-8 8-9 9-10 10-11 11-12
exact/norm bonds :
1-2 2-4 2-5 5-6 6-7 7-8 8-9 9-10 10-11 11-12
G1:0,S
Match level :
1:Atom 2:CLASS 4:CLASS 5:CLASS 6:CLASS 7:Atom 8:CLASS 9:CLASS 10:CLASS
11:CLASS 12:CLASS
Generic attributes :
1:
Saturation
            : Unsaturated
7.
             : Unsaturated
Saturation
=> s 11 sam
           3 SEA SSS SAM L1
=>s 11 full
L3
          100 SEA SSS FUL L1
=> file caplus
=> s 13
T. 4
      3 L3
=> s 14 and pd<sept 1999
    20007522 PD<SEPT 1999
               (PD<19990900)
L5
           0 L4 AND PD<SEPT 1999
=> dis 14 1-3 bib abs fhitstr
L4 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2004:1045227 CAPLUS Full-text
DN 142:155891
TI Design, Synthesis, and Biological Activity of Novel, Potent, and Selective
```

 $({\tt Benzoylaminomethyl}) thiophene \ {\tt Sulfonamide \ Inhibitors \ of \ c-Jun-N-Terminal \ Kinase}$

AU Rueckle, Thomas; Biamonte, Marco; Grippi-Vallotton, Tania; Arkinstall, Steve; Cambet, Yves; Camps, Montserrat; Chabert, Christian; Church, Dennis J.; Halazy, Serge; Jiang, Xuliang; Martinou, Isabelle; Nichols, Anthony; Sauer, Wolfqang; Gotteland, Jean-Pierre

CS Serono Pharmaceutical Research Institute, Geneva, 1228, Switz. SO Journal of Medicinal Chemistry (2004), 47(27), 6921-6934

Journal of Medicinal Chemistry (2004), 47(27), 6921-6934 CODEN: JMCMAR: ISSN: 0022-2623

PB American Chemical Society

PB American Chemical DT Journal

LA English

A English S CASREACT 142:155891

OS

AB Several lines of evidence support the hypothesis that c-Jun N-terminal kinases (JNKs) play a critical role in a wide range of disease states including cell death (apoptosis)-related and inflammatory disorders (epilepsy, brain, heart and renal ischemia, neurodegenerative diseases, multiple sclerosis, rheumatoid arthritis, and inflammatory bowel syndrome). The screening of a compound collection led to the identification of a 2-(benzoylaminomethyl)thiophene sulfonamide (AS004509, I) as a potent and selective JNK inhibitor. Chemical and structure-activity relationship (SAR) studies performed around this novel kinase-inhibiting motif indicated that the left and central parts of the mol. were instrumental to maintaining potency at the enzyme. Accordingly, we investigated the JNK-inhibiting properties of a number of variants of the right-hand moiety of the mol., which led to the identification of 2-(benzoylaminomethyl)thiophene sulfonamide benzotriazole (AS600292, II), the first potent and selective JNK inhibitor of this class which demonstrates a protective action against neuronal cell death induced by growth factor and serum deprivation.

IT 830331-12-9P

RL: CPN (Combinatorial preparation); PAC (Pharmacological activity); PRP (Properties); BIOL (Biological study); CMBI (Combinatorial study); PREP (Preparation)

(preparation, selective c-Jun-N-terminal kinase inhibiting activity and structure—activity relationship of (benzoylaminomethyl)thiophene sulfonamides)

RN 830331-12-9 CAPLUS

RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2002:125925 CAPLUS Full-text

DN 136:151160

TI Preparation of N-thienylsulfonylthiazolecarbohydrazides and analogs as c-Jun N-terminal kinase inhibitors

IN Arkinstall, Stephen; Halazy, Serge; Church, Dennis; Camps, Montserrat; Rueckle, Thomas; Gotteland, Jean-Pierre; Biamonte, Marco

PA Applied Research Systems ARS Holding N.V., Neth. Antilles

SO PCT Int. Appl., 76 pp.

CODEN: PIXXD2

DT Patent LA English

LA Englis

| | PATENT NO. | | | | | | D | DATE | | | | ICAT | | | | | | |
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| PI | WO | 0 2001023382 | | | | A1 | - | 20010405 | | | | | | | | | | |
| | | W: | ΑE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BR, | BY, | BZ, | CA, | CH, | CN, |
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| | | | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NO, | NZ, | PL, | PT, | RO, | RU, |
| | | | SD, | SE, | SG, | SI, | SK, | SL, | TJ, | TM, | TR, | TT, | TZ, | UA, | UG, | US, | UZ, | VN, |
| | | | YU, | ZA, | ZW | | | | | | | | | | | | | |
| | | RW: | GH, | GM, | KE, | LS, | MW, | MZ, | SD, | SL, | SZ, | TZ, | UG, | ZW, | AT, | BE, | CH, | CY, |
| | | | DE, | DK, | ES, | FI, | FR, | GB, | GR, | ΙE, | IT, | LU, | MC, | NL, | PT, | SE, | BF, | ВJ, |
| | | | | | | | | GN, | | | | | | | | | | |
| | EP | 1088822 | | | | A1 | | 20010404 | | | EP 1999-810870 | | | | 19990928 | | | |
| | | R: | ΑT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, | GR, | ΙT, | LI, | LU, | NL, | SE, | MC, | PT, |
| | | | ΙE, | SI, | LT, | LV, | FI, | RO | | | | | | | | | | |
| | | | | | A1 20010405 | | | | | | | | | | | | | |
| | EP 1216245 | | | | | | | | | EP 2 | 000- | -962745 | | | 20000928 | | | |
| | EP | 1216 | | | | | | 20040526 | | | | | | | | | | |
| | | R: | | | | | | ES, | | | | IT, | LI, | LU, | NL, | SE, | MC, | PT, |
| | | | | | | | | RO, | | | | | | | | | | |
| | | AT 267826 | | | | | | | | JP 2001-526534 AT 2000-962745 | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | AU 777293 | | | | | | | | AU 2 | 000- | 2 | 0000 | 928 | | | | | |
| PRAI | | EP 1999-810870 | | | | | | | | | | | | | | | | |
| | WO 2000-IB1381 | | | | | W | | 2000 | 0928 | | | | | | | | | |
| OS | MAI | RPAT | 136: | 1511 | 60 | | | | | | | | | | | | | |
| CT | | | | | | | | | | | | | | | | | | |

G1

- AB RC(:X1)NR1(CH2)nZSOZNRZNR3C(:X2)R4 [I] R = (un)substituted (hetero)aryl; Rl, R2, and R3 = H or alkyl; or RR1 and/or R2R3 = atoms to complete a ring; R4 = (un)substituted alkyl or heterocyclyl; X1 and X2 = 0 or S; Z = (un)substituted (hetero)arylene; n = 0-5) were prepared as c-Jun N-terminal kinase (JNK) inhibitors, especially JNK2 or JNK3 inhibitors. Thus, 2-thiophenenethanamine was amidated by 4-ClC6H4COCl (98%) and the chlorosulfonated product (63%) amidated by 2-(4-(1,3-dithiolan-2-yl)phenyllthiazole-4-carbohydracide to give title compound II (80%). The latter exhibited selective inhibitory effect for JNK2 and JNK3 compared with p3% kinase and ERK2 protein kinase with IC50 values of 0.21 µM, 0.37 µM, >30 µM, and >30 µM, resp. Thus, I are useful for the treatment of neuronal disorders, autoimmune diseases, cancer, and cardiovascular disease.
- IT 332360-50-6P, 4-Chloro-N-[[5-[[2-[[2-[4-(1,3-dithiolan-2-y1)phenyl]-1,3-thiazol-4-y1]carbonyl]hydrazino]sulfonyl]thien-2-y1]methyl]benzamide
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU

(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(JNK inhibitor; preparation of N-thienylsulfonylthiazolecarbohydrazides and analogs as JNK2 and JNK3 inhibitors for treatment of neuronal disorders, autoimmune diseases, cancer, and cardiovascular disease) 332360-50-6 CAPLUS

RN 332360-50-6 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[4-(1,3-dithiolan-2-y1)phenyl]-,
2-[[5-[[(4-chlorobenzoy1)amino]methyl]-2-thienyl]sulfonyl]hydrazide (CA INDEX NAME)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L4 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 2001:246568 CAPLUS Full-text
- DN 134:280838
- TI Preparation of N-thienylsulfonylthiazolecarbohydrazides and analogs as c-Jun N-terminal kinase inhibitors
- IN Arkinstall, Stephen; Halazy, Serge; Church, Dennis; Camps, Montserrat; Rueckle, Thomas; Gotteland, Jean-Pierre; Biamonte, Marco
- PA Applied Research Systems ARS Holding N.V., Neth. Antilles
- SO Eur. Pat. Appl., 32 pp. CODEN: EPXXDW
- DT Patent
- LA English

| FAN. | CNT | 2 | | | | | | | | | | | | | | | | | | | |
|------|------------|------------------|---------|-----|-------------|-------------|------------|----------|----------------|----------------|-----------------|-----|-----|-----|-----|----------|----------|----------|-----|--|--|
| | PATENT NO. | | | | | | | | | | APPLICATION NO. | | | | | | | | | | |
| PI | | EP 1088822 | | | | | | | | | | | | | | | | | | | |
| | | R: | AT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, | GR | , I | Τ, | LI, | LU, | NL, | SE, | MC, | PT, | | |
| | | | IE, | SI, | LT, | LV, | FI, | RO | | | | | | | | | | | | | |
| | CA | A 2385001 | | | A1 20010405 | | | | | CA | 200 | | | | | | | | | | |
| | WO | 2001023382 | | | | A1 20010405 | | | | WO 2000-IB1381 | | | | | | | 20000928 | | | | |
| | | W: | AE, AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BB | , в | G, | BR, | BY, | BZ, | CA, | CH, | CN, | | | |
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| | | | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX | , M | z, | NO, | NZ, | PL, | PT, | RO, | RU, | | |
| | | | SD, | SE, | SG, | SI, | SK, | SL, | TJ, | TM, | TR | , T | Τ, | TZ, | UA, | UG, | US, | UZ, | VN, | | |
| | | | YU, | ZA, | ZW | | | | | | | | | | | | | | | | |
| | | RW: | GH, | GM, | KE, | LS, | MW, | MZ, | SD, | SL, | SZ | , T | z, | UG, | ZW, | AT, | BE, | CH, | CY, | | |
| | | | DE, | DK, | ES, | FI, | FR, | GB, | GR, | ΙE, | IT | , L | U, | MC, | NL, | PT, | SE, | BF, | ВJ, | | |
| | | | CF, | CG, | CI, | CM, | GA, | GN, | GW, | ML, | MR | , N | Ε, | SN, | TD, | TG | | | | | |
| | EP | 1216245 | | | A1 | | 2002 | 20020626 | | EP 2000-962745 | | | | | | | 20000928 | | | | |
| | EP | 1216245 | | | | B1 20040526 | | | | | | | | | | | | | | | |
| | | R: | AT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, | GR | , I | т, | LI, | LU, | NL, | SE, | MC, | PT, | | |
| | | | IE, | SI, | LT, | LV, | FI, | RO, | MK, | CY, | AL | | | | | | | | | | |
| | JP | 2003 | | T | | 2003 | 0318 | | JP 2001-526534 | | | | | | | 20000928 | | | | | |
| | | | | | | | T 20040615 | | | | AT 2000-962745 | | | | | | | 20000928 | | | |
| | PT | 1216 | | T | 20040831 | | | | PT 2000-962745 | | | | | | | 20000928 | | | | | |
| | AU | 1216 7772 | | B2 | | 20041007 | | | AU 2000-74386 | | | | | | | 20000928 | | | | | |
| | | 2216 | | | | 2004 | 1101 | | ES 2000-962745 | | | | | | | 20000928 | | | | | |
| PRAI | EP | 1999 | -810 | 870 | | A | | 1999 | 0928 | | | | | | | | | | | | |
| | WO | 2000 | W | | 2000 | 0928 | | | | | | | | | | | | | | | |
| os | MAI | ARPAT 134:280838 | | | | | | | | | | | | | | | | | | | |

Cl S S S S S

AB RC(:XI)NRI(CH2)nZSO2NR2NR3C(:X2)R4 [I; R = (un)substituted (hetero)aryl; Rl,R2,R3 = H or alkyl; RRI,R2R3 = atoms to complete a ring; R4 = (un)substituted alkyl or -heterocyclyl; X1,X2 = O or S; Z = (un)substituted (hetero)aryene; n = 0-5| were prepared Thus, 2-thiophenemethanamine was amidated by 4-Cl06H4COCl and the chlorosulfonated product amidated by 2-(4-(1,3-dithiolan-2- yl)phenyl|thiazole-4-carbohydrazide to give title compound II. Data for biol. activity of I were given.

IT 332360-50-6P

CN

GΙ

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of N-thienylsulfonylthiazolecarbohydrazides and analogs as c-Jun N-terminal kinase inhibitors)

RN 332360-50-6 CAPLUS

4-Thiazolecarboxylic acid, 2-[4-(1,3-dithiolan-2-yl)phenyl]-, 2-[[5-[(4-chlorobenzoyl)amino]methyl]-2-thienyl]sulfonyl]hydrazide (CA INDEX NAME)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> log y STN INTERNATIONAL LOGOFF AT 18:27:45 ON 11 JUN 2008